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DISCOVERIES AND CURRENT EVENTS *

Angola: Locust Movements (1).

On 19 November 1933 three very large swarms passed over the civil post of Lucala, flying E. S., N. S. and S. E.-N. E.

On the 27th two large red swarms passed over the civil post of Chiume. The direction of flight is not known.

On the 28th a swarm having an area of about 15 km. passed over the civil post of Chiume, flying N. to S.

Records of unknown date. — During the last days of November large swarms crossed the civil circumscription of Menongue, district of Bié, coming from the N. and flying S.

Towards the end of October a few swarms passed over the civil post of Sambo, several of them flying from N. to S.

A few swarms were reported in the region of Camaxilo, district of Loanda; these swarms caused great damage to the forest trees.

A few swarms settled at the civil post of Samba Caju, depositing eggs.

Very large swarms crossed the circumscription of Vila Luso, depositing eggs.

The civil circumscription of Quilengues communicates that during November no swarms were reported.

The circumscription of Quibala, Dilolo and Alto Zambeze report the appearance in large numbers of the first hopper bands.

The other districts of the Colony have not sent official communications.

On 1 December 1933 a very large swarm coming from the S. E. and flying N. E. passed over the civil post of Egyto, civil circumscription of Lobito.

On the 5th a yellowish swarm covering about 2 km passed over Vila Cangamba, circumscription of Luchazes at 9 a. m., flying from S. to N.

* Under this and the next heading the countries are arranged in French alphabetical order.

(1) Communication from Mr. Jorge DE BARROS RODRIGUES QUEIROZ, Director of the Laboratory of Plant Pathology and Agricultural Entomology, Luanda, transmitted to the Institute by the Government General of the Colony.

Records of unknown date. — Some swarms about to lay caused considerable damage to the native crops at the civil post of Ninda, circumscription of Los Bunda.

Several swarms attacked the wooded land, devouring the foliage and the flowers of the honey yielding trees and thus caused serious losses in the wax production, which is the basis of the wealth of this region.

Large egg deposits were located in the civil circumscription of Ambaca and several hopper bands were reported.

In the circumscription of Cuando, district of Moxico locusts have devastated all the native crops as well as the flowers of the trees on which the bees feed.

Large swarms passed over the circumscription of Pungo Andongo causing considerable losses.

Similar damage was reported in the region of Amboim.

In the circumscriptions of Lobito and Huambo several swarms were reported during December.

Between Catete and Maria Tereza (interior of Loanda) several rather scattered swarms of *Nomadacris septemfasciata* were reported, the insects having their ovaries full of eggs and being of a greenish yellow colour.

No official communications have been received from the other districts of the Colony.

Eritrea: Locusts (1).

During March 1934 no swarms of locusts were reported in the Colony.

India: Diseases in the Bombay Presidency (2).

The following parasites have been reported for the first time in the Bombay Presidency :—

Amanita caesarea Fr. doing damage to stones in a house.

Peronospora trifoliorum De Bary on *Medicago sativa* L.

Peronospora effusa (Grev.) Rabenh. on *Chenopodium album* L.

Oidium erysiphoides Fr. on *Crotalaria juncea* L.

Peronospora parasitica (Pers.) De Bary on *Raphanus sativus* var. *caudatus* L. It produces hypertrophy of fruits, flowers, leaves, etc.

Phytophthora parasitica Dast. emend. Ashby on *Lycopersicum esculentum* Mill. This parasite produces decay on tomato fruits.

(1) Communication from Dr Luigi Massa, Acting Chief of the Agricultural Office of Eritrea, transmitted by the Government of the Colony.

(2) Communication from Mr. M. K. Patel, Ag. Plant Pathologist to Government, Bombay Presidency, Poona.

Madagascar: List of the Parasites and Diseases of Cultivated Plants (1).

The first part of this list was published in this *Bulletin* in July 1932 (pp. 105-107).

COFFEE :	
Variegation	
Twig swellings	*Aschersonia* sp. *Strigula* sp.
CACAO :	
Twig canker	*Nectria* sp.
APPLE :	
Pink disease	*Corticium salmonicolor* Berk. et Br.
MULBERRY :	
	Myriangium duriaei Mont. et Berk.
ACACIA :	
Gummosis	?
ARTOCARPUS INTEGRIFOLIA :	
Fruit rot	*Rhizopus artocarpi* Rac.
EUCALYPTUS :	
Gummosis	?
DATE PALM :	
	Graphiola phoenicis (Moug.) Poit.
MANIOC :	
Anthracnose	*Gloeosporium manihotis* Henn.
VANILLA :	
Leprosy	*Cephaleuros virescens* Kunze *Strigula* sp. A species of Asterineae.
Mildew	*Phytophthora jatrophae* Jens. ?
SUGAR CANE :	
Mosaic	Virus disease.
MAIZE :	
Leaf blight	*Helminthosporium turcicum* Pass.
RICE :	
	Rhamphicarpa longiflora Benth.
Fusarium wilt	*Fusarium* sp.

(1) Communication from the official correspondent of the Institute, M. G. BOURIQUET, Director of the Phytopathological Laboratory, Nanisana, Antananarivo.

SORGHUM :	
Rust	Uredo stage.
WHEAT :	
Black rust	*Puccinia graminis* Pers.
Brown rust	*Puccinia triticina* (Schm.) Erikss.
Yellow rust	*Puccinia glumarum* Erikss.
OATS :	
Smut	*Ustilago avenae* (Pers.) Jensen.
TOBACCO :	
' Crinkling '	?
' Kroepoek '	Virus disease.
GROUNDNUT :	
Bacterial rot	*Bacterium solanacearum* E. F. Smith.
POTATO :	
	Alternaria sp.
Tuber rot	*Fusarium* sp.
PATCHOULI :	
Crown gall	?
LUCERNE :	
Rust	Uredo stage

Mozambique: Locust Movements (1).

Cap Delgado District. — During January and February 1934 number of swarms invaded this district causing much damage. At Montepuez over 8960 kg of eggs were collected and 3500 kg at Ancuabe. In several places the hopper bands were controlled by mechanical means and in others the collecting of eggs is being continued.

Nyasa District. — During January and February several swarms were reported which devastated the plantations of the districts of Lago and Unango. In certain places the locusts seem to have deposited eggs.

Mozambique District. — During January and February adult locusts destroyed several plantations. The losses caused were very heavy.

Tete District. — At the beginning of January several swarms coming from the west were reported. Several breeding centres were located and 60

(1) Communication from Mr. Julio Gardé ALFARO CARDOSO, Chief of the Entomological Section, Lourenço Marques, transmitted to the Institute by the Administration of the Agricultural Services of the Colony.

centres and 276 hopper bands were destroyed by mechanical means and 72 bands were destroyed by chemical means ; 350 kg of eggs also were collected. At the post of Capange and at Maravia 677 and 228 hopper bands respectively were destroyed by means of sodium arsenite and 365 bands by mechanical means.

In several places the damage was very serious.

Among the eggs collected in the territory of the post of Vasco de Gama a Dipterous parasite was observed and it was also found that ants were destroying part of the eggs.

Quelimane District. — Towards the middle of February scattered swarms were reported throughout the territory. Eggs to the amount of 3400 kg were collected and 1800 hopper bands were destroyed. At the beginning of February the locusts began to develop wings and towards the middle of the month there were already numbers of winged bands which flew without fixed direction. The hoppers caused considerable damage to the annual crops of the native and European farmers. The means of control employed were trenching, fire, crushing and spraying with arsenite.

Inhambane District. — During January swarms were reported in all the circumscriptions of this district, which caused damage to the crops of maize and cotton. At Massinga and Morrumbene swarms without fixed direction deposited eggs and destroyed all the maize plantations. Eggs were located in all the circumscriptions. Towards the middle and end of January the first hoppers were reported. The quantity of eggs collected was about 16 tons. The losses were considerable.

Lourenço Marques District. — Hopper bands were reported in nearly the whole district. In the circumscription of Goza 510 of these bands have already been destroyed by a gang using chemical methods and 130 by fire. Many small centres of infestation were reported at Banahine and Manjacaze; gangs attempted to destroy them. In the territory of the circumscription of Sabie 2000 small hopper bands were destroyed. In the region of Goba a gang destroyed 400 centres and at the post of catembe the collecting of eggs was continued. The weight of eggs collected up to the present amounts to about 1532 kg. In February winged bands were not found but only certain male individuals which caused no damage.

However, throughout practically the whole district dense hopper bands were reported in spite of the great quantity of eggs collected. It may be said that at the end of February locusts in all stages of development from hatching to the sixth stage were reported.

The bands were combatted by every means possible.

In the more remote regions military squads did the work. The most usual means of control were sprayings with sodium arsenite but mechanical means were also used, particularly in the regions where there was a shortage of water. In the valley of Butchuine several hopper bands were destroyed by means of fire. About 500 natives worked on the destruction of 62 large centres of infestation.

The Goba gang destroyed 1129 bands at Inxiza and Changalene, with an average of 7 tons of hoppers per day.

The situation in the district is grave, for in spite of the daily effort to destroy as many as possible of the hopper bands there remain large numbers in the less accessible regions. Many of these hoppers are beginning to develop wings and in about a month will begin to fly.

The present invasion was foreseen by the Entomological Service as early as 1931 and there is no hope of being able to arrest the plague this year.

Manica and Sofala Territory. — The communication received from the Company of Mozambique on 12 February deals with the progress of the locust invasion from 27 October 1933 to January 1934.

This communication considers the situation as very serious as the whole territory is invaded. A price of $ 2.25 per 100 kg of hoppers collected by the natives has been fixed. In the circumscription of Sena 15 tons of hoppers were collected and 9 in the circumscription of Cheringoma. Gangs have also been formed for combatting the hoppers.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Germany. — By Ministerial Circular No. II/2-242, dated 31 January 1934, relating to the application of the regulations of the Decree of 3 November 1931 [see this *Bulletin*, 1932, No. 2, pp. 24-25], fruits carried by travellers on their entry into the country and intended for consumption during the journey are exempt from phytosanitary inspection. Exemption from such inspection is granted also to fruit grown outside the German frontier by growers whose property is in neighbouring territory, provided that the authorities of the commune have certified that the San José scale [*Aspidiotus perniciosus*] does not occur in the locality in which the fruit was grown. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, den 1. März 1934, Bd. V, Nr. 9, S. 248).

*** By Decree of 1 March 1934 for the purpose of preventing the introduction of the San José scale [*Aspidiotus perniciosus*], the prohibition of importation of living plants and parts of living plants and of materials which have been used in their packing or storage, prescribed by Decree of 11 June 1933 [see this *Bulletin*, 1933, No. 9, p. 201-202], has been extended to Yugoslavia and Portugal.

Fresh fruits and fresh fruit residues coming from these two countries may be imported only by the customs offices nominated for the purpose by the German Government, and only in their original packages and on the express condition that an inspection of the consignment on entry, carried out at the expense of the importer, has not revealed the presence or made it possible to suspect the presence of the San José scale.

Living plants, parts of living plants, and fresh fruits and fresh fruit residues coming from Bulgaria, Greece, Poland, Spain and Czechoslovakia may be impor-

ted only by the customs offices nominated for the purpose by the German Government and on the express condition that an inspection of the consignment on entry, carried out at the expense of the importer, has not revealed the presence or made it possible to suspect the presence of the San José scale.

This Decree entered into force on 25 March 1934. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, den 1. April 1934, Bd. VI, Nr. 2, S. 1-2).

*** By Decree of 15 March 1934 is established the list of custom offices by which may be imported, so long as importation is allowed, fresh fruits and fresh fruit residues coming from Yugoslavia, Austria, Portugal, Rumania and Hungary, also fresh fruits, fresh fruit residues, living plants and parts of living plants coming from Bulgaria, Greece, Poland, Spain and Czechoslovakia.

By the same custom offices may be imported living plants and parts of living plants coming from Yugoslavia, Austria, Portugal, Rumania and Hungary, so long as their importation is permitted as an exceptional measure. This Decree entered into force on 25 March 1934. (*Ibid.*, S. 2-3).

*** All matters relating to the commerce in products used in the control of crop diseases and pests are in the hands of the ' Reichsnährstand ' (' Hauptabteilung IV '), the office of which is in Berlin (Mittelstr. 2-4, Berlin NW 7). (*Nachrichtenblatt für den Deutschen Pflanzenschutzdienst*, Berlin 1934, 14. Jahrg., Nr. 2, S. 18).

Germany (Prussia). — The Law of 18 January 1934 concerning game includes regulations relating to the use of poisons in the fields and the damage caused by game.

It is forbidden in general to spread poison outside houses and well enclosed lands, preparations with a basis of squill not being considered as poison. This regulation does not apply to the control of slugs, insects and worms nor to tha carried out by means of aeroplanes. It is allowed to utilise in the control of mice and rats poisoned seeds coloured red and phosphorus pastes. Such poisons however must be hidden in such a way as to prevent other animals from reaching them. The control of rooks and magpies is also allowed with eggs poisoned with phosphorus ; eggs refused by the birds must be collected at latest three days after. For the control of wild dogs and cats it is allowed to use poisoned carrion. Authorisation will however be given to the owner of hunting rights only if he can prove that the animals to be destroyed have caused considerable damage. The poisoned carrion must be placed at least 300 metres from any inhabitated house or road; it must also be marked by a warning notice. It must be inspected every day.

The regulations concerning the damage caused by game establish a system intended to prevent an excessive increase of large game. They also establish that the owner of the hunting rights is responsible for any damage caused by escaped wild boars. If boars and rabbits are causing considerable damage and if the owner of the hunting rights does not have them killed the authorities may

order their destruction by officials. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, den 1. März 1934, Bd. V, Nr. 9, S. 250-258).

*** By Ordinance of 5 February 1934 it is forbidden in most of the districts of the province of East Prussia to plant after 1 April 1935 varieties of potatoes which are not resistant to wart disease [*Synchytrium endobioticum*]. Persons desiring to procure new plants of potatoes are obliged to utilise only varieties recognised to be resistant by a special Commission authorised for the purpose and controlled by the Central Service for Plant Protection. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, den 1. April 1934, Bd, VI, Nr. 1, S. 13-14).

Germany (Saxony). — By Ministerial Regulation No. 244 VI WL 2, dated 10 January 1934, the police have been ordered to prevent commerce in fruit trees and bushes in the markets and fairs and to take the necessary measures to prevent the infringement of the order by dishonest tradesmen. (*Nachrichtenblatt für den Deutschen Pflanzenschutzdienst*, Berlin 1934, 14. Jahrg., Nr. 2, S. 18).

Argentina. — By Ministerial ' Resolución ' No. 878 of 6 December 1933 the members of the Commission appointed for the study of the control of the " langosta " [*Schistocerca paranensis*] by fumigation have been nominated. (*Boletín Oficial de la República Argentina*, Buenos Aires, 3 de enero de 1934, año XLII, núm. 11874, pág. 56).

*** The Presidential Decree No. 33.159-1830 of 20 December 1933 establishes various measures for the purpose of ensuring the control of grape phylloxera (*Peritymbia vitifoliae*). (*Ibid.*, 10 de enero de 1934, núm. 11.879, págs. 288 y 289).

*** The Presidential Decree No. 36.740-233 of 20 February 1934 annuls the Decree No. 628 of 11 May 1927 [see this *Bulletin*, 1928, No. 1, p. 6].

It is allowed to import grain of maize [*Zea mays*] and sorghum [*Sorghum vulgare*] if it is clean and free from any plant refuse ; failing this the grain will be submitted to disinfection by means of hydrocyanic acid, carbon disulphide or other similar products in accordance with the directions given by the " Oficina Sanitaria de Importación y Exportación de Plantas y semillas ".

It is forbidden to import plants or parts of plants of maize or Johnson grass [*Andropogon halepensis* = *Sorghum halepense*] intended for industrial use or use as packing material. Importation is also forbidden of fodder composed of plants of other species of *Andropogon*, *Saccharum*, *Pennisetum*, *Euchlaena* and *Coix*, also fresh vegetables and flower stalks of iris and dahlias coming from a country in which the European corn borer (*Pyrausta nubilalis*) is present. For the time being grain of maize and sorghum which must be disinfected may enter only by the port of Buenos Ayres. (*Ibid.*, 1º de marzo de 1934, núm. 11.920, pág. 2).

*** The Presidential Decree No. 36.741-234 of 20 February 1934 carries regulations for the circulation in the territory of the Republic of fruit, forest

and ornamental plants and their parts, with the exception of flowers, fruits and seeds. These plants and plant parts must be absolutely healthy. (*Ibid.*, págs. 2 y 3).

*** The Ministerial ' Resolución ' No. 123 of 24 February 1934 provides for the formation of a register of growers of potatoes for seed whose crops must be submitted to official phytopathological inspection and whose products for export will be supplied with a certificate of health and origin. (*Ibid.*, 2 de marzo de 1934, núm. 11.921, págs. 40 y 41).

Australia (Southern Australia). — By a regulation of 8 February 1934 *Ornithogalum thyrsoides* has been declared a noxious weed throughout the territory of the State. (*The South Australian Government Gazette*, Adelaide, February 8 1934, No. 6, p. 254).

Australia (Western Australia). — On 10 January, 1934 the Director of Agriculture announced that *Bellardia Trixago* (=*Bartsia Trixago*) has been declared a noxious weed within the boundaries of the Moora Road Board District. (*Government Gazette of Western Australia*, Perth, January 12, 1934, No. 3, p. 28).

*** On 23 February, 1934 the Director of Agriculture announced that *Echium violaceum*, *Homeria collina*, and *Watsonia* have been declared noxious weeds within the boundaries of the Dardanup Road Board District. (*Government Gazette of Western Australia*, Perth, March 2, 1934, No. 12, p. 309).

*** On the same date the Director of Agriculture announced that *Lycium ferocissimum* has been declared a noxious weed within the boundaries of the Fremantle District Road Board. (*Ibid.*).

Australia (Queensland). — The Act No. 29 of 18 December 1933 amends the Law relating to rabbit, dingo and mursupial destruction, provides for the abolition of District Improvement Boards, as constituted under ' The Grazing Districts Improvement Act of 1930 ', and confers upon prescribed local authorities the powers, rights, authorities, duties, obligations and responsibilities of the abolished District Improvement Boards, etc. (*Queensland Government Gazette*, Brisbane, 2nd January, 1934, No. 1, pp. 1-23).

Brazil. — The regulations for the export of citrus fruits, approved by Decree No. 23.835 of 6 February 1934, order, *inter alia*, that fruits for export shall be free from diseases, pests, bruises, and other blemishes. (*O Campo*, Rio de Janeiro, março 1934, anno V, n. 3, pags. 43-44, 48).

Chile. — The Decree No. 4 of 4 January 1934 establishes that imported wheat intended for milling must be absolutely free from the Angoumois grain moth (*Sitotroga cerealella*). (*Diario Oficial de la República de Chile*, Santiago, 19 de enero de 1934, año LVII, núm. 16, 777, pág. 219).

Cuba. — By Decree No. 1135 of 3 August 1933 was created the ' Junta Cuarentenaria de Plantas ' which is intended for the previous study of the drafts of laws, decrees and resolutions to be applied by the ' Servicio de Cuarentenas de Plantas ' and for the reform of the legislative measures now in force. (*Revista de Agricultura, Comercio y Trabajo*, Órgano oficial, Habana, Cuba, agosto de 1933, año XIV, vol. 14, pág. 99).

Eritrea. — By Governatorial Decree No. 6754, dated 7 February 1934, the articles 3, 4, 5 and 6 of the Governatorial Decree No. 2026 of 13 July 1914 were annulled and replaced by the following :—

Art. 3. — Any consignment of plants, plant parts and seeds coming from Italy or any foreign country must be accompanied by a certificate of health and origin stating the nature, country of origin and health of the plant products contained in the consignment with regard to diseases and parasites which may be a danger to the cultivated and wild plants of the Colony.

Art. 4. — The certificate referred to in Article 3 must be issued by the Royal Phytopathological Service for shipments coming from Italy and by the official. Services for those coming from any other country.

Art, 5. — With a view to protecting the Colony from the introduction of diseases, parasites and weeds injurious to the cultivated and wild plants of the Colony, the chief of the Agricultural Bureau will propose, when necessary, the publication of decrees forbidding the importation of given species or classes of plants.

Art. 6. — Consignments of plants which, though accompanied by the certificate of health and origin, are found not to be free from diseases, parasites and weeds capable of being a danger to the production of useful cultivated or wild plants in the Colony, will be destroyed by order of the chief of the custom house without any compensation being payable to the owner. (*Bollettino Ufficiale del Governo dell'Eritrea*, Asmara, 15 febbraio 1934, anno XLIII, n. 3, p. 60).

Spain. — By Decree of 10 February 1934 in each of the Sections of which the Institute of Agronomic Research is now composed [see this *Bulletin*, 1933, No. 1, p. 11] there is to be an establishment functioning as a Central Station.

The Central Phytopathological Station of Madrid will be the Centre of the Section of Phytopathology. (*Gaceta de Madrid*, Madrid, 13 febrero 1934, año CCLXXIII, tomo I, núm. 44, págs. 1188 y 1189).

France. — A Ministerial Decree of 28 February 1934 indicates the boundaries of the zones declared infected with the Colorado beetle [*Leptinotarsa decemlineata*] and the zones of protection. Previous Ministerial Decrees of the same nature are annulled. (Ministère de l'Agriculture, Direction de l'Agriculture. *Bulletin de l'Office de Renseignements Agricoles*, Paris, 1er avril 1934, nº 7, p. 143-149).

*** The presence of the Colorado beetle having been ascertained in Great Britain a Ministerial Decree of 1 March 1934 repeals the authorisation for importation granted as an exceptional measure for seed potatoes grown in and coming from the above-named country [see this *Bulletin*, 1932, No. 5, p. 80]. (*Ibid.*, p. 150).

Italy. — A Ministerial Decree of 23 January 1934 fixes the credit to be assigned to the budget of the Ministry of Agriculture and Forests for the granting of loans to the Anti-Phylloxera Syndicates. (*Bollettino Ufficiale del Ministero dell'Agricoltura e delle Foreste*, Roma, 1° aprile 1934, anno VI, n. 7, pp. 1914-1915).

*** A Ministerial Decree of 25 January 1934 fixes the amount of the contributions to be paid by the State to the persons concerned in the control of citrus scales and establishes the rules to be followed in the granting of such contributions. (*Ibid.*, pp. 1731-1735).

*** The Ministerial Circular No. 443 of 28 February 1934 addressed to the Directors of the Regional Phytopathological Observatories indicates the rules to be observed in the exportation of potatoes from Italy to the following European countries: Germany, Czechoslovakia, Yugoslavia, Austria, Hungary, Denmark, England, Belgium, Sweden, Norway, Luxemburg, France, Switzerland, Greece. (*Ibid.*, pp. 1754-1761).

Jamaica. — By Proclamation No. 29 of 13 January 1934, called 'The Customs (Importation Prohibition) Fruit and Vegetables Proclamation 1934', the importation into the island of all fruits and vegetables (except dried or processed fruits and vegetables, grains, seeds, potatoes and any species of *Allium*) from all countries is prohibited. This prohibition is not applicable to fruits and vegetables produced in the United Kingdom and Ireland, Canada, the Bahamas and the United States of America, provided that importations are accompanied by a certificate from a competent authority of the Government of the country of origin, stating that the produce is home grown, fresh, clean and free from diseases and pests. The certificate shall especially state that the Mediterranean fruit fly (*Ceratitis capitata*) does not exist in the country of origin. All produce admitted under this Proclamation shall be subject to inspection by an officer duly authorised by the Director of Agriculture. Produce found to be infected shall be submitted to disinfection or destroyed by and at the expense of the importer without compensation. (*The Jamaica Gazette*, January 18, 1934, Vol. LVII, No. 4, pp. 45-46).

Czechoslovakia. — By Decree of the Minister of Agriculture, dated 7 March 1934, it is allowed during 1934 to import potatoes from Italy, Hungary and Yugoslavia, as their respective Governments have taken measures against wart

disease [*Synchytrium endobioticum*]; these measures are in accordance with the regulations of Czechoslovakia of 17 July 1925. Importation of potatoes from the Netherlands, Germany, Poland and Austria is allowed only exceptionally and with authorisation from the Ministries of Agriculture and Commerce. (*Landwirtschaftliche Fachpresse für die Tschechoslowakei*, Tetschen 1934, 12. Jahrg., Nr. 12, S. 76-77).

Uruguay. — According to the Presidential Decree of 10 January 1914, all consignments of potatoes imported into the country and intended for cultivation must be accompanied by certificates of health and origin stating : —

(*a*) That the imported tubers come from regions free from the following diseases and parasites: *Synchytrium endobioticum, Spongospora subterranea, Phthorimaea operculella* and *Leptinotarsa* (*Doryphora*) *decemlineata.*

(*b*) That the tubers which are exported are free from any other serious parasitic disease, a certain margin of toleration being allowed for comparatively harmless affections.

As regards the various forms of ' sarna ' (scab) distinction must be made between the following : —

(1) The ' sarna polvorienta ' (powdery scab) caused by *Spongospora subterranea*, the presence of which, as has been mentioned above, renders the consignment useless as seed.

(2) The ' sarna nigra ' (black scab) produced by *Rhizoctonia violacea*, the presence of which necessitates disinfection of tubers intended for seed.

(3) The ' sarna común ' (common scab) caused by *Oospora* (*Actinomyces*) *scabies*, which may be tolerated when it is found only in a low proportion, as, for example, when not more than 5 % of the number of tubers are affected and of these, not more than 10 % of the surface.

In addition to certificates of health and origin, consignments of potatoes must be accompanied by a certificate issued by the Government of the exporting country, to the effect that the tubers were specially selected for seed and that the farms on which they were grown have been under official supervision and inspection ; also that in the official inspections it was ascertained that there was no evidence of ' degeneration ', that is to say, the presence of different affections such as leaf roll, mosaic, etc., which lower the vitality of the tubers.

If the tubers, on their arrival in the country, are judged by the experts of the Agronomic Board (' Dirección de Agronomía ') to be unsuitable for seed, they may be utilised for consumption unless for some special reason they are also unfit for this purpose.

Tubers which are pronounced by competent authorities to be unfit either for cultivation or consumption must be destroyed by them, the importer being responsible for the expenditure involved.

The tubers imported by commercial firms for cultivation in the country are still subject, even after having passed the Uruguay custom-house, to supervision by officials of the Agricultural Improvement and Protection Section (' Sección Fomento y Defensa Agrícola '), the importers being responsible for the maintenance of the tubers in good condition.

The present Decree will become effective three months after the date of issue (1).

*** By 'Resolución' No. 1460-933 of 16 January 1934 it is arranged that the Inspection General of the Army shall approve the sum to be allotted for the control of the 'langosta' [*Schistocerca paranensis*]. (*Diario Oficial de la República Oriental del Uruguay*, Montevideo, 26 de enero de 1934, tomo 114, núm. 8234, pág. 170-A).

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